Name:

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Geometry, Period

Due Date: Wed, 3 Sep 2014

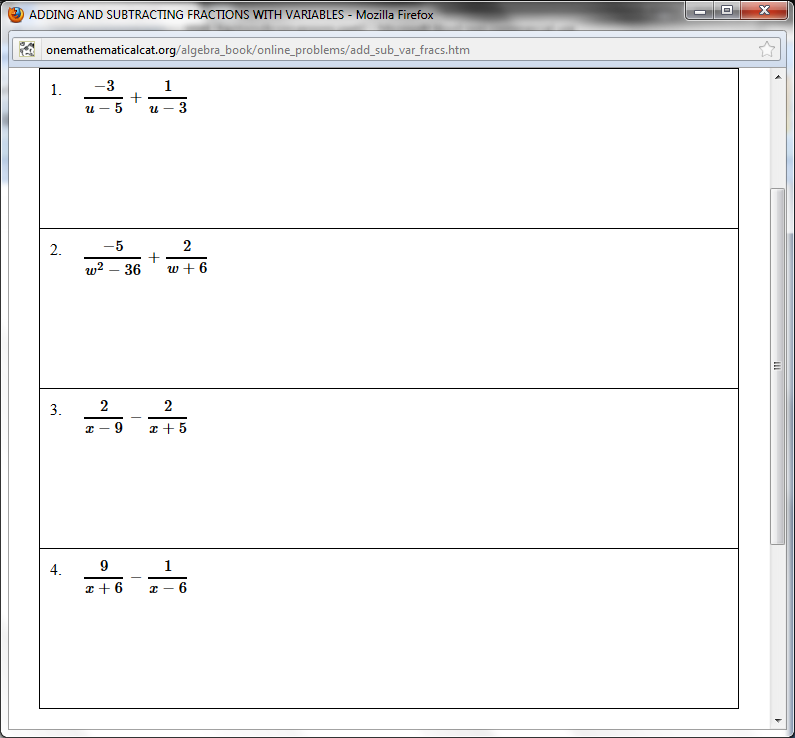
**Geometry**

**Homework**



1. **Fractions with Variables**

Combine into a single fraction. Leave the denominator in factored form.



**1**

*(hint: After you create a common denominator, can you simplify it by expanding it? Also, pay attention to what happens to the variable on top!*

*(hint: Can you factor to something? Try* ***(w + ? )(w – ? ).***

*(hint: To create a common denominator, multiply the left side by and the right side by to get a common denominator of .*

5. Simplify

*Hint 1: start by multiplyingboth sides (top & bottom) by the* ***inverse*** *of the fraction on the bottom.*

*Hint 2: you can* ***factor*** *.   
Think of it as .*

1. **Word Problems: Conversion & Changing the Subject**
2. Solve  for . 🡪 🡪

1. Solve  for .
2. Write  as a function of *s*.
3. Write  as a function of *x*.
4. In science, work is defined as using a force to move something a distance. The formula for work *W* (in joules) is *W = ,* where *F* is the force (in newtons) and *d* is the distance (in meters)*.*
5. Explain how to solve the formula for **force**.
6. Chantelle pushes a box 4.5 meters, doing 144 joules of work. What force does she use to push the box? *(Hint: use the formula you created in a. Plug in 4.5 for d, or distance, and 114 for W, or work.)*
7. Chantelle then pushes the box 9 meters, twice as far as in part (b). She does the same amount of work as in part (b), 144 joules. What force does she use?
8. In general, if the distance an object is moved is doubled, but the amount of work done does not change, how does the amount of force used change?
9. Four consecutive **odd** numbers have an average of 8. What is the smallest number?
   1. Show your work using a number line. *(Hint: remember that 8 is not odd!)*

8

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* 1. Show your work using an equation. *(Hint: remember that* ***odd*** *numbers means you’re counting by 2s. So if your smallest number is* ***n,*** *your next number is* ***n+2.****)*

1. There are four children in Mrs. T-G’s family. Each one was born 4 years apart. When the sum of their ages was 64 years, how old was the youngest sibling?